DOCUMENT RESUME

ED 126 118 TM 005 373

AUTHOR Stetz, Frank P.
TITLE Selected References Concerning Objective-Based Assessment: A Bibliography.
INSTITUTION Psychological Corp., New York, N.Y.
PUB DATE Apr 75
NOTE 55p.

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS *Bibliographies; *Criterion Referenced Tests; Curriculum Development; Curriculum Evaluation; *Educational Objectives; Educational Research; Individualized Instruction; Item Analysis; Norm Referenced Tests; Test Construction; Test Reliability; Test Validity

ABSTRACT

Objective-based assessment, known as criterion referenced testing, relies on the development of test items related directly to instructional objectives and incorporated into instruments for which predetermined criterion standards have been set. This bibliography attempts to provide in a somewhat systematic fashion, selected references concerning objective-based assessment. Although not complete, it offers interested researchers a source of selected references from which they may draw. The bibliography is divided into two parts: references dealing with instructional objectives and those which deal with criterion referenced testing. It is not annotated. (RC)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED126118

Selected References Concerning Objective-Based Assessment: A Bibliography

Frank P. Stetz
Data Services Division
The Psychological Corporation

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

TM005 373

Preface

Within the past ten years the educational community has seen the advancement of a form of objective-based assessment among measurement specialists. This form of evaluation, known as criterion-referenced testing, relies upon the development of test items related directly to instructional objectives and incorporated into instruments for which predetermined criterion standards have been set.

While much has been reported concerning various issues associated with the developing methodology of such an assessment technique, little has been done to record in a systematic manner the contributions to the literature. This report attempts to provide in a somewhat systematic fashion, selected references concerning objective-based assessment. Although far from complete, it offers interested researchers a source of selected references from which they may draw. The report is divided into two parts: references dealing with instructional objectives and those which deal with criterion-referenced testing.

I would like to acknowledge Ronald K. Hambleton and Roy Williams of the University of Massachusetts, Amherst for their contribution of "Articles Related to Methodological Considerations for Criterion-Referenced Tests". Sharon Meyers deserves a special thank you for her expert skills in putting this report into its final form.

Frank P. Stetz

April, 1975
New York City

Table of Contents

Selected References Concerning Stated Educational Objectives

General Articles 1

Classifying Educational Objectives 2

Defining, Developing and Writing Educational Objectives 3

Educational Objectives and Curriculum Development/Evaluation 5

Mood Toward Educational Objectives 8

Opposition Toward Educational Objectives 10

Research on Educational Objectives 12

Applications of Educational Objectives 17

Selected References Concerning Criterion-Referenced Tests

Theory and Rationale for Criterion-Referenced Testing 20

Test/Item Development and Analysis 23

Research on Criterion-Referenced Testing 27

Reliability and Validity Issues for Criterion-Referenced Tests 28

Criterion-Referenced Testing and Curriculum Development/Evaluation 31

Applications of Criterion-Referenced Testing 35

Criterion-Referenced Testing and Individualization of Instruction/ Individualized Instructional Models 40

Criterion-Referenced Instruments 44

Criterion-Referenced Testing and Norm-Referenced Testing 47

Articles Related to Methodological Considerations for Criterion-Referenced Tests 48

Additional References 50

General Articles

Allendoerfer, C. B., & Forbes, J. E. Utility of behavioral objectives. Mathematics Teacher, 1971, 64, 686-687.

Coen, F. Behavioral objectives and all. Media and Methods, 1972, 8, 50.

Dart, G. E. Look at verifiable performance objectives. Educational Leadership, 1971, 28, 726-729.

Jackson, P. W., & Bedford, E. Educational objectives and the joys of teaching. School Review, 1965, 73, 267-291.

Lindwall, C. M. Review of selected publications on behavioral objectives. Journal of Educational Measurement, 1972, 9, 75-81.

Miles, D. T., & Robinson, R. E. Behavioral objectives: An even closer look. Educational Technology, 1971, 11(6), 39-44.

Nadig, H. D., Jr. Some behavioral objectives for teachers. English Journal, 1974, 63, 53-56.

Newport, J. F. Behavioral objectives. School and Community, 1971, 57, 22.

Plowman, P. D. Behavioral objectives. Chicago, Ill.: Science Research Associates, 1971.

Rising, G. R. & Kaufman, B. A. Response to managerial education. Educational Technology, 1973, 13, 11-59.

Shane, J. G., & Shane, H. G. Ralph Tyler discusses behavioral objectives. Todays Education, 1973, 62, 41-46.

Smith, P. G. On the logic of behavioral objectives. Phi Delta Kappan. 1972, 53, 429-431.

Steinberg, I. S. Behavioral definition of educational objectives: A critique. National Society for the Study of Education Yearbook, 1972, 1, 143-163.

Walbesser, H. H. Behavioral objectives: A cause celebre. Arithmetic Teacher, 1972, 19, 418.

Walbesser, H. H. & Carter, H. L. Behavioral objectives. National Council of Teachers of Mathematics Yearbook, 1972, 35, 52-103.

Ware, W. B., et al. Role of behavioral objectives: A response to A. W. Combs. Educational Leadership, 1973, 30, 667-671.

Weber, M. C. Behavioral objectives: Another look. Science and Children, 1974, 11, 20-21.

Wertheimer, M. Productive thinking. New York: Harper & Row, 1959.

Classifying Educational Objectives

Ammerman, H. L. & Melching, W. H. The derivation, analysis and classification of objectives. Technical Report No. 66-4, George Washington University, May 1966. Contract No. DA-44-188-ARO-2, Department of the Army.

Billeh, V. Y. Analysis of teacher-made science items in light of the taxonomic objectives of education. Science Education, 1974, 58, 313-319.

Bloom, B. S. (Ed.) Taxonomy of educational objectives, handbook I: Cognitive domain. New York: David McKay Co., 1956.

Cox, R. C., & Unks, N. A selected and annotated bibliography of studies concerning the "Taxonomy of educational objectives: Cognitive domain." Pittsburgh: Learning Research and Development Center, University of Pittsburgh, 1967.

Eiss, A. J., & Harbedk, M. B. Behavioral objectives in the affective domain. Washington D. C.: National Education Association, 1969.

Finch, A. V. Behavioral analysis: Cognitive, affective, and psychomotor domains. National Business Education Yearbook, 1971, 9, 277-285.

Geisinger, R. W. Construct validation of hierarchical taxonomies of educational objectives. Educational Technology, 1973, 13, 26-29.

Harrow, A. J. A taxonomy of the psychomotor domain: A guide for developing behavioral objectives. New York: McKay, 1972.

Krathwohl, D. R., et al. Taxonomy of educational objectives, Handbook II: Affective domain. New York: David McKay Co., 1974.

Madaus, G. F., et al. Causal model analysis of Bloom's taxonomy. American Educational Research Journal, 1973, 10, 253-262.

Palmer, R. H. Two hundred years BB (before Bloom). Educational Technology, 1974, 14, 24-25.

Scott, M. V. Cognitive analysis of instructional materials: An illustration of one use of the taxonomy of educational objectives. Science Education, 1973, 57, 291-296.

Smith, I. L. I.Q., creativity, and the taxonomy of educational objectives: Cognitive domain. Journal of Experimental Education, 1970, 38, 58-60.

Stedman, C. H. Analysis of the assumptions underlying the taxonomy of educational objectives: Cognitive domain. Journal of Research in Science Teaching, 1973, 10(3), 235-241.

Tuckman, B. W. Four-domain taxonomy for classifying educational tasks and objectives. Educational Technology, 1972, 12, 36-38.

Defining, Developing and Writing Educational Objectives

Allan, R. G. Writing behavioral objectives and criterion tests. Holyoke, Mass: Scott Graphics, 1972.

Bruton, R. W. Method for evaluating instructional objectives. Educational Technology, 1974, 14, 33-37.

Cassel, R. N. Fundamental principles for teaching by objectives. Peabody Journal of Education, 1972, 50, 75-80.

Cheong, G. S. C. Ability to write objectives and the quality of teaching. Education, 1973, 94, 182-184.

Clark, D. C., & Wilson, R. J. Behavioral objectives: Suggestions for some new priorities. Journal of Teacher Education, 1971, 22, 322-325.

Conroy, N. G. Synthesized behavioral objective. Educational Technology, 1973, 13, 29-32.

Craik, M. B. Writing objectives for programmed instruction - or any instruction. Educational Technology, 1966, 6(4), 15-21.

Frank, A. R. Breaking down learning tasks: A sequence approach. Teaching Exceptional Children, 1973, 6, 16-19.

Gronlund, N. E. Stating behavioral objectives for classroom instruction. New York: Macmillan, 1970.

Harmes, H. M. Specifying objectives for performance contracts. Educational Technology, 1971, 11, 52-56.

Jenkins, J. R., & Dens, S. L. Model for instructional objectives: Responsibilities and advantages. Educational Technology, 1970, 10, 11-16.

Krathwohl, D. R., & Payne, D. A. Defining and assessing educational objectives. In R. L. Thorndike & E. Hagen, Measurement and evaluation in psychology and education. New York: Wiley, 1971.

Lapp, D. K. Behavioral objectives writing skills test. Journal of Education, 1972, 154, 13-24.

Lapp, D. K. Can elementary teachers write behavioral objectives? Journal of Education, 1973, 155, 31-44.

Lindman, M. R., & Grimes, G. P. Development and use of behavioral objectives in student teaching. Art Education, 1973, 26, 11-15.

Lindvall, C. M. (Ed.) Defining behavioral objectives. Pittsburgh: University of Pittsburgh Press, 1964.

Liveritte, R. H. Getting clear about behavioral objectives. English Journal, 1974, 63, 46-52.

Mager, R. F. Preparing objectives for programmed instruction. San Francisco: Fearon, 1961.

Mager, R. F. Preparing instructional objectives. Palo Alto, Calif.: Fearon Publishers, 1968.

McAshan, H. H. Writing behavioral objectives: A new approach. New York: Harper & Row, 1970.

McMahon, M. B. Formulating educational objectives: An entente. Peabody Journal of Education, 1974, 51, 288-295.

Miles, D. T. Clarifying learning priorities in education. Educational Technology, 1973, 13, 7-16.

Morreau, L. E. Structural analysis and classification of objectives. Educational Technology, 1974, 14, 46-48.

Phi Delta Kappa, Commission on Educational Planning. Workshop packet for educational goals and objectives: A model program for community and professional involvement. Bloomington, Ind.: PDK, 1972.

Popham, W. J. The instructional objective exchange: New support for criterion-referenced instruction. Phi Delta Kappan, 1970, 52, 174-175.

Popham, W. J. Objectives '72. Phi Delta Kappan, 1972, 54, 432-435.

Popham, W. J. Procedural guidelines: Developing IOX objectives-based tests. Los Angeles: IOX, 1972.

Popham, W. J. Selecting objectives and generating test items for objectives-based tests. Los Angeles: Instructional Objectives Exchange, 1972.

Popham, W. J., & Baker, E. L. Establishing educational goals. Englewood Cliffs, N. J.: Prentice-Hall, 1970.

Popham, W. J., et al. Instructional objectives. Chicago: Rand McNally, 1969.

Shumate, N. M. Writing behavioral objectives. Peabody Journal of Education, 1974, 51, 101-106.

Thiagarajan, S. Good objectives and bad: A checklist for behavioral objectives. Educational Technology, 1973, 13, 23-28.

Vargas, J. S. Writing worthwhile behavioral objectives. New York: Harper & Row, 1972.

Educational Objectives and Curriculum Development/Evaluation

Atkin, J. M. Behavioral objectives in curriculum design: A cautionary note. In R.C. Anderson, et al. (Eds.), Current research on instruction. Englewood Cliffs, N. J.: Prentice-Hall, 1969.

Atkinson, G. F. Network analysis and explicit objectives: Complementary planning tools. Journal of Chemical Education, 1974, 51, 324-326.

Beyond the standardized test: Objectives-based evaluation in reading. Journal of Reading, 1972, 15, 616-617.

Boehm, A. E. Criterion-referenced assessments for the teacher. Teachers College Record, 1973, 72, 117-126.

Burns, R. W. Behavioral objectives for competency-based education. Educational Technology, 1972, 12, 22-25.

Button, W. Competence-based teacher education: Brief report on a brief inquiry. Urban Education, 1974, 9, 3-6.

Competency-based education: For whom? Educational Leadership, 1974, 31, 291-293.

Connolly, J. A., & Hoagland, M. L. Adapting instruction to school objectives and student needs. Educational Technology, 1972, 12, 31-34.

Dahl, T. Toward an evaluative methodology for criterion-referenced measures: Objective-item congruence. Paper presented at the annual meeting of the California Educational Research Association, San Diego, 1971.

Drumheller, S. J., & Brooks, R. D. Beyond behavioral objectives: A community-based strategy for evaluating a school system's educational program. Educational Technology, 1973, 13, 13-19.

Ebel, R. L. Evaluation and educational objectives. Journal of Educational Measurement, 1973, 10, 273-279.

Ehman, L. H., & Okey, J. R. Attempts at competency-based teacher education. Viewpoints, 1974, 50, 49-62.

Eisele, J. E. Counselor and individualized instruction. The Personnel and Guidance Journal, 1973, 52, 239-243.

Feldhusen, J. F., et al. Designing instruction to achieve higher level goals and objectives. Educational Technology, 1974, 14, 21-23.

Fichtenau, R. L., & Watson, R. P. Monitoring student achievement. Theory Into Practice, 1973, 12, 254-258.

Fitzpatrick, K. Performance objectives in teaching. Educational Technology, 1973, 13, 60.

Gagne, R. M. The analysis of instructional objectives for the design of instruction. In R. Glaser (Ed.), Teaching machines and programmed learning, II: Data and directions. Washington, D. C.: Department of Audio Visual Instruction, N.E.A., 1965.

Galloway, C. G., & Mickelson, N. I. Improving teachers questions. Elementary School Journal, 1973, 74, 145-148.

Hardner, R. J., & Pratton, D. L. Curriculum reform through behavioral objectives. Junior College Journal, 1970, 41, 12-16.

Hayes, J. J., & DiSanto, J. D. Implementation of behavioral objectives in curriculum developments. Education, 1969, 90, 44-48.

Henson, K. T. Accountability and performance-based programs in education: Some pros and cons. Intellect, 1974, 102, 250-252.

Hersh, R., & Cohen, S. Beyond behavioral objectives: Individualizing learning. Elementary School Journal, 1972, 73, 101-106.

Hively, W. Domain-referenced testing: Symposium. Educational Technology, 1974, 14, 5-64.

Hogben, D. Curriculum development and evaluation: The need to look beyond behavioral objectives. Teachers College Record, 1973, 74, 529-536.

Johnson, R. B. Objectives-based accountability procedures for classroom use. Educational Technology, 1971, 11(6), 49-51.

Kapfer, P. G. Behavioral objectives and the curriculum processor. Educational Technology, 1970, 10, 14-17.

Kibler, R. J, Barker, L. L., & Miles, D. T. Behavioral objectives and instruction. Boston: Allyn & Bacon, 1970.

Kliebard, H. M. Curricular objectives and evaluation: A reassessment. High School Journal, 1968, 51, 241-247

Krathwohl, D. R. Stating objectives appropriately for program, for curriculum, and for instructional material development. Journal of Teacher Education, 1965, __, 83-92.

Marksberry, M. L., & Sandquist, M. L. Illustrative application of two basic learning principles in planning pupils' learning experiences. Educational Horizons, 1973, 51, 90-96.

McNeil, J. D. Concomitants of using behavioral objectives in the assessment of teacher effectiveness. Journal of Experimental Education, 1967, 36, 69-74.

Mueller, D. J. Mastery model and some alternative models of classroom instruction and evaluation: An analysis. Educational Technology, 1973, 13, 5-10.

Nephew, E. Behavioral objectives and program reorganization. Reading Teacher, 1972, 25, 618-621.

Popham, W. J. Objectives and instruction. In The American Educational Research Association Monograph Series on Curriculum Evaluation, No. 3, 1969.

Popham, W. J. Practical ways of improving curriculum via measurable objectives. National Association of Secondary School Principals Bulletin, 1971, 55, 76-90.

Qualley, C. A. Program revitalization: A productive function for behavioral objectives. Art Education, 1973, 26, 2-5.

Royal, M. Performance objectives and C-R tests: We wrote our own. The Reading Teacher, 1974, 27, 701-703..

Scriven, G. H., & Scriven, E. G. Behavioral objectives and the learning psyche. Clearing House, 1973, 47, 529-531.

Skager, R. W. The system for objective-based evaluation: Reading. Evaluation Comment, 1971, 3(1), 6-11.

Sullivan, H. J. Developing effective objectives-based instruction. Educational Technology, 1971, 11,(7), 55-57.

Taylor, B. L. Implications of the National Assessment Model for Curriculum Development and Accountability. Social Education, 1974, 38, 404-411.

Tyler, R. W. The objectives and plans for national assessment of educational progress. Journal of Educational Measurement, 1966, 3, 1-4.

Walker, D. F., & Schaffarzick H. Comparing curricula. Review of Educational Research, 1974, 44, 83-111.

Wentting, T. L. Measuring the achievement of competencies. Educational Technology, 1973, 13, 48-50.

Mood Toward Educational Objectives

Behavioral objectives and human values: Symposium. Educational Technology, 1971, 11, 35-51.

Borich, G. D. Accountability in the affective domain. Journal of Research and Development in Education, 1971, 5, 87-96.

Coop, R. H., & White, K. P. Objectives and achievement measurement: The congruency between students and teachers' perceptions of behavioral objectives. Educational and Psychological Measurement, 1972, 32, 355-364.

Denton, J. J. Student and teacher cooperatively selected behavioral objectives. Instructor, 1974, 19, 11-12.

Dumas, W. Can we be behaviorists and humanists too? Educational Forum, 1973, 37, 303-306.

Ebel, R. L. Some comments. School Review, 1967, 75, 261-266.

Edwards, C. H. Behavioral objectives: An updating. Comtemporary Education, 1973, 45, 23-26.

Feirer, J. L. Performance objectives: Concerned about them? Industrial Education, 1973, 62, 21-25.

Frase, L., & Talbert, E. G. Behavioral objectives: Penacea or holocaust? Instructor, 1971, 16, 85.

Frey, S. Behavioral objectives: Attitudes of teachers. Clearing House, 1974, 48, 487-490.

Gagne, R. M. Behavioral objectives? Educational Leadership, 1972, 29, 394-400.

Grube, J. R. Effect of behavioral objectives on classroom management. Educational Technology, 1971, 11, 57-58.

Hill, R. K. Objectives: A return to reason. The Agricultural Education Magazine, 1974, 46, 162-163.

Johnson, A. Behavioral objectives and educational responsibility. Todays Speech, 1971, 19, 35-38.

Kimball, R. B. Educational philosophy and behavioral objectives. Clearing House, 1971, 45, 496-500.

Knief, L. M. Objectives are not the place to begin. Educational Technology, 1974, 14, 37-39.

Krowetz, M. L. Objectives: Who thinks about them? Clearing House, 1974, 48, 308-310.

Larson, R. C. Behaviors and values: Creating a synthesis. Music Educators Journal, 1973, 60, 40-44.

Merritt, D. L. Performance objectives: A beginning, not an end. Contemporary Education, 1971, 42, 209-212.

Miles, D. T. Affective priorities and educational objectives. Educational Technology, 1972, 12, 33-35.

Nerboirg, M. H. Teachers' perceptions of the function of objectives. (Doctoral thesis, University of Wisconsin): Dissertation Abstracts, 1956, 16(12), 2406-2407.

Nichols, E. D. Are behavioral objectives the answer? Education Digest, 1972, 38, 50-52.

Ojemann, R. H. Should educational objectives be stated in behavioral terms? Elementary School Journal, 1974, 74, 291-298.

Palmer, R. A. Questions about performance objectives. School and Community, 1974, 60, 34.

Performance goals cut down complaints and confusion. Nation's Schools, 1973, 91, 71.

Popham, W. J. Must all objectives be behavioral? Educational Leadership, 1972, 29, 605-608.

Rothstein, H. M. Humanistic approach to behavioral objectives. English Journal, 1971, 60, 760-762.

Scribner, H. B., & Stevens, L. B. Politics of teacher competence. Phi Delta Kappan, 1974, 56, 51-53.

Stake, R. E. Objectives, priorities, and other judgement data. Review of Educational Research, 1970, 40, 181-212.

Wight, A. R. Beyond behavioral objectives. Educational Technology, 1972, 12, 9-14.

Woodruff, A. D., & Kapfer, P. G. Behavioral objectives and humanism in education: A question of specificity. Educational Technology, 1972, 12, 51-55.

Opposition Toward Educational Objectives

Adams, D. M. Some questions concerning behavioral objectives. Journal of Teacher Education, 1972, 23, 25-26.

Browdy, H. S. Can research escape the dogma of behavioral objectives? School Review, 1970, 79, 43-56.

Byram, C. A. Competency-based education: How competent? Educational Technology, 1973, 13, 38-39.

Day, J. F. Behavioral technology: A negative stand. Intellect, 1974, 102, 304-306.

Doll, W. E., Jr. Methodology of experience: An alternative to behavioral objectives. Educational Theory, 1972, 22, 309-324.

Drumheller, S. J. Behavioral objectives as learning inhibitors: A dilemma and a solution. Educational Technology, 1974, 14, 17-20.

Ebel, R. L. Behavioral objectives: A close look. Phi Delta Kappan, 1970, 52, 171-173.

Eisner, E. W. A response to my critics. School Review, 1961, 75, 277-282.

Eisner, E. W. Educational objectives: Help or hindrance? School Review, 1967, 75, 250-260.

Eisner, E. W. Instructional and expressive objectives: Their formation and use in curriculum. In Instructional objectives: AERA Monograph on Curriculum Evaluation. Chicago: Rand McNally, 1969.

Hilton, E. Some cautions about objectives. Instructor, 1974, 84, 16.

Hinkemeyer, M. T. Beyond behavioral objectives: Freedom of choice. National Elementary Principal, 1974, 53, 65-67.

Macdonald, J. B., & Wolfson, B. J. Case against behavioral objectives. Elementary School Journal, 1970, 71, 119-128.

Moskovitz, S. Behavioral objectives: New ways to fail children? Young Children, 1973, 28, 232-235.

Popham, W. J. Probing the validity of arguments against behavioral goals. In R. C. Anderson, et al. (Eds.), Current research on instruction. Englewood Cliffs, N. J.: Prentice-Hall, 1969.

Raths, J. D. Teaching without specific objectives. Educational Leadership, 1971, 28, 714-720.

Simons, H. D. Behavioral objectives: False hope for education. Elementary School Journal, 1973.

Tyler, R. W. Father of behavioral objectives criticizes them. Phi Delta Kappan, 1973, 55, 55-57.

Vonk, H. G. Behavioral objectives: Let the buyer beware. Clearing House, 1973, 47, 543-544.

Waks, L. J. Re-examining the validity of arguments against behavioral goals. Educational Theory, 1973, 23, 133-143.

Research on Educational Objectives

Airasian, P. W. A study of the behaviorally dependent classroom taught task hierarchies. Educational Technology Research Report Series, No. 3, 1971.

Arnold, D. S., et al. Question and response levels and lapse time intervals: Bloom's taxonomy. Journal of Experimental Education, 1974, 43, 11-15.

Baker, E. L. Effects on student achievement of behavioral and non-behavioral objectives. Journal of Experimental Education, 1969, 37, 5-8.

Baker, E. L. Project for research on objective-based evaluation (PROBE). Educational Technology, 1970, 10, 56-59.

Beisenberz, P. C., & Tucker, J. L. Limitations of research in science teacher questioning behaviors. Science Education, 1974, 58, 423-429.

Bishop, D. D. Effectiveness of prior exposure to performance objectives as a technique for improvement of student recall and retention. Unpublished doctoral dissertation, Ohio State University, 1969.

Blaney, J. P., & McKie, D. Knowledge of conference objectives and effect upon learning. Adult Education Journal, 1969, 29, 98-105.

Boardman, E. The effects of advanced knowledge of behavioral objectives on students' achievement in remedial chemistry. Unpublished doctoral dissertation, UCLA, 1970.

Boehm, A. E., et al. Behavioral objectives in training for competence in the administration of individual intelligence tests. Journal of Social Psychology, 1974, 12, 150-157.

Briggs, L. J., Stoker, H. W., & Scanlon, P. Comparison of performance on objective-referenced vs. content-referenced tests. Mimeographed document, Florida State University, 1971.

Brown, J. L. The effects of revealing instructional objectives on the learning of political concepts and attitudes in two role-playing games. Unpublished doctoral dissertation, UCLA, 1970.

Bryant, N., Jr. The effects of performance objectives on the achievement level of selected eight-grade science pupils in four predominantly black inner-city schools. Unpublished doctoral dissertation, Indiana University, 1970.

Bryant, N., Jr., & Anderson, H. A. Effects of performance objectives on achievement. Journal of Research in Science Teaching, 1972, 9 (4), 60-75.

Scanlon, B. A. A comparison of the performance of seventh grade students with and without prior knowledge of the objectives of an individualized science program. Unpublished doctoral dissertation, Florida State University, 1970.

Cook, J. M. Learning and retention by informing students of behavioral objectives and their place in the hierarchical learning sequence. USOE Final Report, 1969 (ERIC: ED 036 869).

Cox, R. C. Item selection techniques and evaluation of instructional objectives. Journal of Educational Measurement, 1965, 2, 181-185.

Dalis, G. T. The effect of precise objectives upon student achievement in health education. Journal of Experimental Education, 1970, 39(2), 20-23.

Doty, C. R. The effect of practice and prior knowledge of educational objectives on performance. Unpublished doctoral dissertation, Ohio State University, 1968.

Duchastel, P. C., & Brown, B. R. Incidental and relevant learning with instructional objectives. Journal of Educational Psychology, 1974, 66, 481-485.

Duchastel, P. C., & Merrill, P. F. The effects of behavioral objectives on learning: A review of empirical studies. Review of Educational Research, 1973, 43(1), 53-69.

Engel, R. S. An experimental study of the effect of stated behavioral objectives on achievement in a unit of instruction on negative and rational base systems of numeration. Unpublished master's thesis, University of Maryland, 1968.

Etter, D. C. G. Adult learner charcteristics and instructional objectives. Unpublished doctoral dissertation, UCLA, 1969.

Glaser, R. Some research problems in automated instruction: Instructional objectives and subject-matter structure. In J. E. Coulson (Ed.), Programmed learning and computer-based instruction. New York: Wiley, 1962.

Gorth, W. P., Allen, D. W., & Grayson, A. Computer program for test objective and item banking. Educational and Psychological Measurement, 1971, 31, 245-250.

Griffin, J. Z. The relationship between behavioral objectives and measurement instruments used to evaluate student progress in an urban adult basic education program. Unpublished doctoral dissertation, Catholic University of America, 1971.

Hastings, G. R. Independent learning based on behavioral objectives. Journal of Educational Research, 1972, 65, 411-416.

Houston, J. G., & Pilliner, A. E. G. Effect of verbal teaching style on the attainment of educational objectives in physics. British Journal of Educational Psychology, 1974, 44, 163-174.

Huck, S. W., & Long, J. D. Effect of behavioral objectives on student achievement. Journal of Experimental Education, 1973, 42, 40-41.

Jenkins, J. R., & Deno, S. L. Influence of knowledge and type of objectives on subject matter learning. Journal of Educational Psychology, 1971, 62, 67-70.

Jeter, C. C. Testing management performance objectives: A sample criterion test. Educational Technology, 1974, 14, 31-33.

Kaplan, R., & Rothkopf, E. A. Instructional objectives as directions to learners: Effect of passage length and amount of objective-relevant content. Journal of Educational Psychology, 1974, 66, 448-456.

Kaplan, R., & Simmons, F. G. Effects of instructional objectives used as orienting stimuli or as summary/review upon prose learning. Journal of Educational Psychology, 1974, 66, 614-622.

Kuster, R. A. Instructional strategies: The effect of personality factors on recognition learning using statements of behavioral objectives as opposed to no statements of behavioral objectives prior to instruction. Unpublished doctoral dissertation, Indiana University, 1970.

Merrill, P. F. Interaction of cognitive abilities with availability of behavioral objectives in learning a hierarchical task by computer-assisted instruction. Technical Report No. 5, CAI Laboratory, University of Texas, Austin, 1970.

Merrill, P. F. Effects of the availability of objectives and/or rules on the learning process. Journal of Educational Psychology, 1974, 66, 534-539.

Merrill, P. F., & Towle, N. J. Interaction of abilities and anxiety with availability of objectives and/or test items on computer-based task performance. Proceedings, 79th Annual Convention, American Psychological Association, 1971.

Merrill, P. F., & Towle, N. J. The effects of the availability of objectives on performance in a computer-managed graduate course. Tech Memo No. 47, CAI Center, Florida State University, Tallahassee, 1972.

Morse, J., & Tillman, M. Effects on achievement of possession of behavioral objectives and training concerning their use. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Nelson, D. L. The effect of specifically stated instructional objectives on the achievement of collegiate undergraduate economics students. Unpublished doctoral dissertation, University of Minnesota, 1970.

Olsen, R. C. Comparative study of the effect of behavioral objectives on class performance and retention in physical science. Journal of Research in Science Teaching, 1973, 10(3), 271-277.

Olsen, G. H. A multivariate examination of the effects of behavioral objectives, knowledge of results, and the assignment of grades on the facilitation of classroom learning. Unpublished doctoral dissertation, Florida State University, 1971.

Oswald, J. M., & Fletcher, J. D. Some measured effects of specificity and cognitive level of explicit instructional objectives upon test performance among eleventh grade social science students. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Platt, R. G. An investigation of the effect the training of teachers in defining, writing and implementing educational behavioral objectives has on learner outcomes for students enrolled in a seventh-grade mathematics program in the public schools. Unpublished doctoral dissertation, Lehigh University, 1969.

Popham, W. J., & Baker, E. L. The instructional objectives preference test. Journal of Educational Measurement, 1965, 2, 186.

Rabehl, C. The experimental analysis of educational objectives. Unpublished doctoral dissertation, University of Minnesota, 1971.

Rothkopf, E. L., & Kaplan, R. Exploration of the effect of density and specificity of instructional objectives on learning from text. Journal of Educational Psychology, 1972, 63, 295-302.

Schneiderwent, M. C. The effects of using behavioral objectives in the instruction of Harvard Project Physics. Unpublished doctoral dissertation, University of Northern Colorado, 1970.

Schock, N. H. Analysis of the relationship which exists between cognitive and affective educational objectives. Journal of Research in Science Teaching, 1973, 10(4), 299-315.

Smith, J. M. Relations among behavioral objectives, time of acquisition, and retention. Unpublished doctoral dissertation, University of Maryland, 1970.

Stedman, C. H. The effects of prior knowledge of behavioral objectives on cognitive learning outcomes using programmed materials in genetics. Unpublished doctoral dissertation, Indiana University, 1970.

Stedman, C. H. Is providing students with behavioral objectives incorporated into programmed materials efficient? Journal of Experimental Education, 1972, 41, 73-77.

Tiemann, P. W. Student use of behaviorally-stated objectives to augment conventional and programmed revisions of televised college economics lectures. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1968.

Weinberg, H. Effects of presenting varying specificity of course objectives to students on learning motor skills and associated cognitive material. Unpublished doctoral dissertation, Temple University, 1970.

Yelon, S. L., & Schmidt, W. H. Effect of objectives and instructions on the learning of a complex cognitive task. Journal of Experimental Education, 1973, 41, 91-96.

Applications of Educational Objectives

Anderson, R. D. Formulating objectives for elementary science: Part 1. Science and Children, 1967, 5 (1), 20-23.

Baker, G. E. Performance based instruction in electronics. Industrial Education, 1974, 63, 54-55.

Carson, R. B., et al. Open area school: Facilitator for or obstacle to instructional objectives. Journal of Education, 1973, 155, 18-30.

Chanan, G. Objectives in the humanities. Educational Research, 1974, 16, 198-205.

Clark, D. C. Using instructional objectives in teaching. Glenview, Illinois: Scott, Foresman, 1972.

Clark, F. E. Now you can teach classes of one: Performance based instruction. Industrial Education, 1973, 62, 28-29.

Coehn, A. M., & Shawl, W. F. Coordinating instruction through objectives. Junior College Journal, 1970, 41, 17-19.

Dean, H. Building the base for self-paced learning: Performance based instruction in industrial education. Industrial Education, 1973, 62, 22-23.

French, W. Behavioral goals of general education in high school. New York: Russell Sage Foundation, 1957.

Garry, V. V. Competencies that count among reading specialists. Journal of Reading, 1974, 17, 608-613.

Girod, G. R. Creative writing and behavioral objectives. Elementary English, 1973, 50, 971-976.

Greenberg, H. J. Objectives of mathematics education. The Mathematics Teacher, 1974, 67, 639-643.

Gross, S., et al. Behavioral objectives in a reading skills program: Grades 4-6. Reading Teacher, 1974, 27, 782-789.

Hertling, J. E. Competency based education: Is it applicable to adult education programs? Adult Leadership, 1974, 23, 50-52.

Johnson, R. B. Objectives-based accountability procedures for classroom use. Educational Technology, 1971, 11(6), 49-51.

Kersh, M. E. Behavioral objectives in mathematics: An annotated bibliography. Mathematics Teacher, 1971, 64, 705-707.

Koziol, M., Jr. Dramatization and educational objectives. English Journal, 1973, 62, 1167-1170.

Maffei, A. C. Instructional objectives, comprehension, and mathematics. Reading Improvement, 1973, 10, 37-39.

McCants, E. Teaching occupational objectives in vocational agriculture. The Agricultural Education Magazine, 1973, 46, 19.

Miller, H. G., & Greer, C. F. Adult education: Performance-based programs. Clearing House, 1973, 48, 121-124.

Morgan, R. M. Mastery learning and programmed instruction in developing countries. Educational Technology, 1973, 13, 25-28.

Moxley, R. A., Jr. World's worst reading objective. Educational Technology, 1974, 14, 20-26.

Nagel, C. Behavioral objectives approach to health instruction. Journal of School Health, 1970, 40, 255-258.

Niles, O. S. Behavioral objectives and the teaching of reading. Journal of Reading, 1972, 16, 104-110.

Okey, J. R. Altering teacher and pupil behavior with mastery teaching. School Science and Mathematics, 1974, 74, 530-535.

O'Reilly, R. P., Cohen, S. A., & Algozzine, J. Criterion objectives for the bank of objectives, items, and resources in reading. Albany, N. Y.: New York State Education Department, 1973.

Piper, R. M., & Shoemaker, D. M. Formative evaluation of a kindergarten music program based on behavioral objectives. Journal of Research in Music Education, 1973, 21, 145-152.

Rude, R. T. Objective-based reading systems: An evaluation. The Reading Teacher. 1974, 28, 169-175.

Scriven, M. Student values as educational objectives. Proceedings of the 1965 Invitational Conference on Testing Problems. Princeton, New Jersey: Educational Testing Service, 1966.

Trezise, R. L. Developing performance objectives in social studies in Michigan. Social Education, 1974, 38, 24-29.

Tucker, C. O. Toward facilitation of behavioral objectives in speech communication. Speech Teacher, 1973, 22, 231-236.

Wood, D. A. Appropriate use of educational objectives. School Science and Mathematics, 1974, 74, 199-203.

Theory and Rationale for Criterion-Referenced Testing

Angoff, W. H. Scales with nonmeaningful origins and units of measurement. Educational and Psychological Measurement, 1962, 22, 27-34.

Block, J. H. Criterion-referenced measurements: Potential. School Review, 1971, 69, 289-298.

Bormuth, J. R. On the theory of achievement test items. Chicago: University of Chicago Press, 1970.

Carroll, J. B. A model of school learning. Teachers College Record, 1963, 64, 723-733.

Castine, W. H., & Tocco, T. S. The rationale underlying criterion-referenced testing. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1972.

Criterion-referenced testing. NEA Research Division Reports, 1971, 49, 35-36.

Cronbach, L. J. The two disciplines of scientific psychology. American Psychologist, 1957, 12, 671-684.

Cronbach, L. J. Course improvement through evaluation. Teachers College Record, 1963, 64, 672-683.

Dahl, T. Toward an evaluative methodology for criterion-referenced measures: Objective-item congruence. Paper presented at the annual meeting of the California Educational Research Association, San Diego, 1971.

Davis, F. B. Criterion-referenced measurement. Paper presented at the annual meeting of the American Educational Research Association, New York, 1971.

Ebel, R. L. Content standard test scores. Educational and Psychological Measurement, 1962, 22, 15-25.

Ebel, R. L. Some measurement problems in a national assessment of educational progress. Journal of Educational Measurement, 1966, 3, 1-7.

Flanagan, J. C. Units, scores, and norms. In E. F. Lindquist (Ed.), Educational measurement. Washington, D.C.: American Council on Education, 1951.

Flanagan, J. C. Discussion. Educational and Psychological Measurement, 1962, 22, 35-39.

Flanagan, J. C. Functional education for the seventies. Phi Delta Kappan, 1967, 49, 27-32.

Flanagan, J. C Education: How and for what. American Psychologist, 1973, 28, 551-556.

Gagne, R. M. Some notes on criterion-referenced measurement. Florida State University, 1969. (mimeo)

Glaser, R. Instructional technology and the measurement of learning outcomes. American Psychologist, 1963, 18, 519-521.

Glaser, R. A criterion-referenced test. In W. J. Popham (Ed.), Criterion-referenced measurement: An introduction. Englewood Cliffs, N.J.: Educational Technology Publications, 1971.

Glaser, R. Individuals and learning: The new aptitudes. Educational Researcher, 1972, 1(6), 5-13.

Glaser, R. Educational psychology and education. American Psychologist, 1973, 28, 557-566.

Glaser, R., & Nitko, A. J. Measurement in learning and instruction. In R. L. Thorndike (Ed.), Educational measurement. Washington, D.C.: American Council on Education, 1971.

Hambleton, R. K. A decision-theoretic approach to criterion-referenced evaluation. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Hambleton, R. K. Toward a theory and practice of criterion-referenced testing. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Hambleton, R. K., & Novick, M. R. Toward an integration of theory and method for criterion-referenced tests. Journal of Educational Measurement, 1973, 10, 159-170. (Also published as ACT Research Report No. 53. Iowa City, Iowa: American College Testing Program, 1972.)

Hively, W. Introduction to domain-referenced achievement testing. Symposium presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Hively, W. Domain-referenced testing: Symposium. Educational Technology, 1974, 15, 5-64.

Krathwohl, D. R., & Payne, D. A. Defining and assessing educational objectives. In R. L. Thorndike (Ed.), Educational measurement. Washington, D.C.: American Council on Education, 1971.

Kriewall, T. E. Applications of information theory and acceptance sampling to the management of mathematics instruction. Technical Report #103, Wisconsin Research and Development Center for Cognitive Learning, University of Wisconsin, Madison, 1969.

McClelland, D. C. Testing for competence rather than for "intelligence". American Psychologist, 1973, 28, 1-14.

Millman, J. Criterion-referenced measurement. Washington, D.C.: American Educational Research Association, in press.

Pinsky, P. D. Issues in the implementation of criterion-referenced evaluation. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Popham, W. J. (Ed.) Criterion-referenced measurement: An introduction. Englewood Cliffs, N.J.: Educational Technology Publications, 1971.

Popham, W. J. Criterion-referenced instruction. Belmont, Calif.: Fearon Publishers, 1973.

Popham, W., & Husek, T. R. Implications of criterion-referenced measurement. Journal of Educational Measurement, 1969, 6, 1-9.

Roudabush, G. E. Models for a beginning theory of criterion-referenced tests. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1974.

Scriven, M. The methodology of evaluation. In B. O. Smith (Ed.), Perspectives of curriculum evaluation. Chicago: Rand McNally, 1967.

Simon, G. B. Comments on "Implications of criterion-referenced measurement". Journal of Educational Measurement, 1969, 6, 259-260.

Thorndike, E. L. Original tendencies as ends: Emulation in the case of school "marks". In E. L. Thorndike, Educational psychology. New York: Teachers College, Columbia University, 1913.

Tyler, R. W. Testing for accountability: Criterion-referenced tests. Education Digest, 1971, 36, 12-14.

Ward, J. On the concept of criterion-referenced measurement. British Journal of Educational Psychology, 1970, 40, 314-323.

Wrightstone, J.W., Hogan, T. P., & Abbott, M. M. Accountability in education and associated measurement problems. Test Service Notebook 33. New York: Test Department, Harcourt Brace Jovanovich, 1971.

Test/Item Development and Analysis

Cleary, T. A. Strategies for criterion-referenced test construction using classical procedures. Paper presented at the annual meeting of the American Educational Research Association, New York, 1971.

Cox, R. C. Item selection techniques and evaluation of instructional objectives. Journal of Educational Measurement, 1965, 2, 181-185.

Cox, R. C., & Graham, G. T. The development of a sequentially scaled achievement test. Journal of Educational Measurement, 1966, 3, 147-150.

Cox, R. C., & Vargas, J. C. A comparison of item selection techniques for norm-referenced and criterion-referenced tests. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1966 (ERIC ED 010 517).

Curtis, H. A. (Ed.) The development and management of banks of performance based test items. Research in Education, Educational Resources Information Center, 1973, (ED 072 099).

Estes, C., & Estes, G. D. Criterion-referenced item analysis using Bayes' formula. Paper presented at the annual meeting of the National Council on Measurement in Education, Washington, D.C., 1975.

Evans, D. N. Standards are needed for CRTs. Educational Leadership, 32, 268-270.

Gronlund, N. E. Preparing criterion-referenced tests for classroom instruction. New York: Macmillan, 1973.

Haladyna, T. M. Effects of different samples on item and test characteristics of criterion-referenced tests. Journal of Education, 1974, 11, 93-99.

Hanson, R. A. Quality control indicators in assessing criterion-referenced instructional programs. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Hanson, R. A., & Berger, R. J. Quality assurance in large scale installations of criterion-referenced instructional programs. Research in Education, Educational Resources Information Center, 1973, (ED 059 547).

Harris, M., & Stewart, D. M. Application of classical strategies to criterion-referenced test construction. A paper presented at the annual meeting of the American Educational Research Asscciation, New York, 1971.

Helmstadter, G. C. A comparison of the traditional item analysis selection procedures with those recommended for tests designed to measure achievement following performance oriented instruction. Paper presented at the annual meeting of the American Psychological Association, Honolulu, 1972.

Jackson, R. Developing criterion-referenced tests. In Research in Education, Educational Resources Information Center, 1970 (ED 041 052).

Jeter, C. C. Testing management performance objectives: A sample criterion test. Educational Technology, 1974, 14, 31-33.

Johnson, M. S., & Kress, R. A. Task analysis for criterion-referenced tests. The Reading Teacher, 1971, 24, 355-359.

Kania, J. G., & Tabers, D. L. Quantification of item precision in criterion-referenced testing. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1972.

Kifer, E., & Bramble, W. The calibration of a criterion-referenced test. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1974.

Klein, S. P., & Kosecoff, J. Issues and procedures in the development of criterion-referenced tests. ERIC TM Report #26, 1973.

Kriewall, T. E., & Hirsch, E. The development and interpretation of criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, 1969 (ERIC ED 042 815).

Lindquist, E. F. Preliminary considerations in objective test construction. In E. F. Lindquist (Ed.), Educational measurement. Washington, D.C.: American Council on Education, 1951.

Lindvall, C. M., & Nitko, A. J. Criterion-referenced tests: A rationale for their development and an empirical investigation of their use. Paper presented at the annual meeting of the National Council on Measurement in Education, Los Angeles, 1969.

Millman, J. Tables for determining number of items needed on domain-referenced tests and number of students to be tested. Los Angeles: Instructional Objectives Exchange, Technical Paper No. 5, April, 1972.

Millman, J. Passing scores and test lengths for domain-referenced measures. Review of Educational Research, 1973, 43, 205-216.

Millman, J., & Popham, W. J. Issue of item and test variance for criterion-referenced tests: A clarification. Journal of Educational Measurement, 1974, 11 137-138.

Nitko, A. J. A model for criterion-referenced tests based on use. Paper presented at the annual meeting of the American Educational Research Association, New York, 1971 (ERIC ED 049 318).

Popham, W. J. The instructional objectives exchange: New support for criterion-referenced instruction. Phi Delta Kappan, 1970, 52, 174-175.

Popham, W. J. Indices of adequacy for criterion-referenced test items. In W. J. Popham (Ed.), Criterion-referenced measurement: An introduction. Englewood Cliffs, N.J.: Educational Technology Publications, 1971.

Popham, W. J. Procedural guidelines, developing IOX objectives-based tests. Los Angeles: Instructional Objectives Exchange, 1972.

Popham, W. J. Selecting objectives and generating test items for objectives-based tests. Los Angeles: Instructional Objectives Exchange, 1972.

Popham, W. J. Technical travails of developing criterion-referenced tests. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1974.

Rahmlow, H. F., Matthews, J. J., & Jung, S. M. An empirical investigation of item analysis in criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Roudabush, G. E. Item selection for criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Roudabush, G. E., & Green, D. R. Aspects of a methodology for creating criterion-referenced tests. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1972.

Royal, M. Performance objectives and C-R tests: We wrote our own. The Reading Teacher, 1974, 27, 701-703.

Sabers, D. L., & Kania, J. G. Item precision in criterion-referenced measurement. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1972.

Terwilliger, J. S. Quotas, task difficulty and performance standards for criterion-referenced tests. Paper presented at the annual meeting of the National Council on Measurement in Education, Washington, D.C., 1975.

Vargas, J. S. Item selection for pretest-posttest situations. Paper presented at the annual meeting of the National Council on Measurement in Education, Los Angeles, 1969.

Vargas, J. S. Item analysis for criterion-referenced tests. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1972.

Wardrop, J. L. The use of item characteristic curves for criterion-referenced measurement. Urbana: University of Illinois, 1970. (mimeo)

Warrington, W. G. Criterion related measures: Some general considerations. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Willingham, W. W. Criterion relevance in tests designed to recognize achievement. Paper presented at the annual meeting of the American Psychological Association, Honolulu, 1972.

Wood, R. The place and value of item banking. Educational Research, 1968, 10, 114-125.

Woodson, M.I.C.E. Criterion-referenced scales by a normal-ogive model. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1974.

Woodson, M.I.C.E. Issue of item and test variance for criterion-referenced tests. Journal of Educational Measurement, 1974, 11, 63-64.

Woodson, M.I.C.E. Issue of item and test variance for criterion-referenced tests: A reply. Journal of Educational Measurement, 1974, 11, 139-140.

Wright, B. D. Sample-free test calibration and person measurement. In Proceedings of the 1967 Invitational Conference on Testing Problems. Princeton, N.J.: Educational Testing Service, 1967.

Wright, B. D., & Panchapekesan, N. A procedure for sample-free item analysis. Educational and Psychological Measurement, 1969, 29, 23-48.

Research on Criterion-Referenced Testing

Astin, A. W. Criterion-centered research. Educational and Psychological Measurement, 1964, 24, 807-822.

Baker, E. L., & Fink, A. G. Risk-taking in criterion-referenced testing. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1972.

Cotton, T. S. An empirical test of the binomial error model applied to criterion-referenced tests. Unpublished doctoral dissertation, University of Pittsburgh, 1971.

Davis, F. B. 1971 AERA conference summaries: Criterion-referenced measurement. Research in Education, Educational Resources Information Center, 1973, (ED 060 134).

Davis, F. B. 1972 AERA conference summaries: Criterion-referenced measurement. Research in Education, Educational Resources Information Center, 1973, (ED 073 143).

Graham, D. An examination of criterion-referenced test characteristics in relation to assumptions about the nature of achievement variables. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Green, D. R., & Roudabush, G. E. An investigation of bias in a criterion-referenced reading test. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Harris, C. W. An index of efficiency for fixed-length mastery tests. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Hills, J. R. Experience in small graduate classes and approaches to evaluating criterion-related measures. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Hsu, T. C. Empirical data on criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, New York, 1971.

Hsu, T. C., & Boston, M. E. Criterion-referenced measurement: An annotated bibliography. Pittsburgh: Learning, Research and Development Center, University of Pittsburgh, 1972.

Keller, C. M. Criterion-referenced measurement: A bibliography. Research in Education, Educational Resources Information Center, 1973, (ED 060 044).

Klein, S. P., & Kosecoff, J. B. A review of currently available criterion-referenced assessment. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Russell, H. H., Leithwood, K. A., & Mayne, F. Post-treatment variability in criterion-referenced data. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Schriber, P. E. An empirical comparison of criterion-referenced data collected by mastery test versus repeated item-examinee sampling. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Woodson, M.I.C.E. A generalizability theory approach to criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Reliability and Validity Issues for Criterion-Referenced Tests

Algina, J. A review of selected psychometric issues pertaining to criterion-referenced testing and measurement. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Baker, J. P., Giesen, P. A., & Norwood, C. R. Confusability: A criterion-referenced reliability procedure for interaction analysis observation instruments. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1974.

Coulson, D. The construction and validation of criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Cronbach, L. J. Validation of educational measures. Proceedings of the 1969 Invitational Conference on Testing Problems. Princeton, N.J.: Educational Testing Service, 1970.

Edmonston, L. P., Randall, R. S., & Oakland, T. A model for estimating the reliability and validity of criterion-referenced measures. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Haladyna, T. M. An investigation of full and subscale reliabilities of criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1974.

Harris, C. W. An interpretation of Livingston's reliability coefficient for criterion-referenced tests. Journal of Educational Measurement, 1972, 9, 27-29.

Harris, C. W. Survey of techniques for analyzing reliability: Criterion-referenced measures. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Ivens, S. H. An investigation of item analysis reliability and validity in relation to criterion-referenced tests. Unpublished doctoral dissertation, Florida State University, 1970.

Junker, L. K., & Stewart, D. M. An index of parallel forms of criterion-referenced tests as a function of the distribution of test scores. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Livingston, S. A. Interpretation and misinterpretation of the criterion-referenced reliability coefficient. Center for Social Organization of Schools, The John Hopkins University, undated.

Livingston, S. A. The reliability of criterion-referenced measures. Center for Social Organization of Schools, Technical Report #73, John Hopkins University, 1970.

Livingston, S. A. A classical test-theory approach to criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Livingston, S. A. A reply to Harris' "An interpretation of Livingston's reliability coefficient for criterion-referenced tests." Journal of Educational Measurement, 1972, 9, 31.

Livingston, S. A. Criterion-referenced applications of classical test theory. Journal of Educational Measurement, 1972, 9, 13-26.

Livingston, S. A. Reply to Shavelson, Block and Ravitch's "Criterion-referenced testing: Comments on reliability". Journal of Educational Measurement, 1972, 9, 139-140.

Macready, G. B., & Merwin, J. C. Homogeneity within item forms in domain referenced testing. Educational and Psychological Measurement, 1973, 33, 351-360.

Marshall, J. L. Reliability indices for criterion-referenced tests. Paper presented at the annual meeting of the National Council on Measurement in Education, New Orleans, 1973.

Marshall, J. L. A single-administration reliability index for criterion-referenced tests: The mean split-half coefficient of agreement. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Oakland, T. An evaluation of available models for estimating the reliability and validity of criterion-referenced measures. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Raju, N. S. A note on Livingston's reliability coefficient for criterion-referenced tests. Paper presented at the annual meeting of the National Council on Measurement in Education, New Orleans, 1973.

Randall, R. S., Edmonston, L. P., & Oakland, T. D. A model for estimating the reliability and validity of criterion-referenced measures. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Rim, E. D., & Bresler, S. Livingston's reliability coefficient and Harris' index of efficiency: An empirical study of the two reliabiltiy coefficients for criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1974.

Roudabush, G. E., & Green, D. R. Some reliability problems in criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, New York, 1971.

Rovinelli, R. The validation of criterion-referenced items. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Rovinelli, R., & Hambleton, R. K. Some procedures for the validation of criterion-referenced test items. Final Report. Albany, N.Y.: Bureau of School and Cultural Research, New York State Education Department, 1973.

Shavelson, R. J., Block, J. H., & Ravitch, M. M. Criterion-referenced testing: Comments on reliability. Journal of Educational Measurement, 1972, 9, 133-137.

Skager, R. W. A classical scheme for assessment instruments - a theoretical conception: Criterion-referenced testing. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Stiles, R., Hathaway, W. E., & Forster, F. Use of the Rasch model with content referenced tests. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Swaminathan, H. On the use of Bayesian methods with criterion-referenced test data: A review of issues and procedures. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Swaminathan, H., et al. Reliability of criterion-referenced tests: A decision-theoretic formulation. Journal of Educational Measurement, 1974, 11, 263-267.

Thorndike, E. L. The estimation of test validity: Criteria or proficiency. In E. L. Thorndike, Personnel selection test and measurement techniques. New York: John Wiley & Sons, 1949.

Unks, N. J. An investigation of validity and reliability concepts for criterion-referenced measurement. Unpublished master's thesis, University of Pittsburgh, 1969.

Criterion-Referenced Testing and Curriculum Development/Evaluation

Airasian, P. W. Formative evaluation instruments: A construction and validation of tests to evaluate learning over short time periods. Unpublished doctoral dissertation, University of Chicago, 1969.

Airasian, P. W. The role of evaluation in mastery learning. In J. H. Block (Ed.), Mastery learning: Theory and practice. New York: Holt, Rinehart, Winston, 1971.

Airasian, P. W., & Madaus, G. F. Functional types of student evaluation. Measurement and evaluation in Guidance, 1972, 221-233.

Baker, E. L. Using measurement to improve instruction. Research in Education, Educational Resources Information Center, 1973, (ED 069 762).

Block, J. H. Student evaluation: Toward the setting of mastery performance standards. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Block, J. H. Student learning and the setting of mastery performance standards. Educational Horizons, 1972, 50, 183-190.

Bloom, B. S. Some theoretical issues relating to educational evaluation. In R. Tyler (Ed.), Educational evaluation: New roles, new means, 68th yearbook, Part II. Chicago: National Society for the Study of Education, 1969.

Bloom, B. S., Hastings, J. T., & Madaus, C. F. Handbook on formative and summative evaluation of student learnings. New York: McGraw-Hill, 1971.

Blumenfeld, G. J., Bostow, D., & Waugh, R. Effect of criterion-referenced testing upon the use of remedial exam opportunities. Paper presented at the annual meeting of the American Educational Research Association, New York, 1971.

Brennan, R. L., & Stolurow, L. M. An elementary decision process for formative evaluation of an instructional system. Research in Education, Educational Resources Information Center, 1971, (ED 048 343).

Cox, R. C. Evaluative aspects of criterion-referenced measurement. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970. (ERIC, ED 038 679).

Crawford, W. R. Assessing performance when the stakes are high. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Doherty, W. J., & Hanson, R. A. Domain-referenced assessments in program-fair evaluation. Paper presented at the annual meeting of the National Council on Measurement in Education, Washington D.C., 1975.

Ebel, R. L. Some problems in assessing educational performance. Paper presented at the National Conference on Performance Contracting, Washington, D.C., 1971.

Ebel, E. L. Evaluation and educational objectives. Journal of Educational Measurement, 1973, 10, 273-279.

Edmonston, L. P. A review of attempts to arrive at more suitable evaluation models: An introspective look. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Emrick, J. A. An evaluation model for mastery testing. Journal of Educational Measurement, 1971, 8, 321-326.

Glaser, R. Evaluation of instruction and changing educational models. In M. C. Wittrock & D. E. Wiley (Eds.), The evaluation of instruction. New York: Holt, Rinehart, and Winston, 1970.

Glaser, R., & Cox, R. C. Criterion-referenced testing for measurement of educational outcomes. In R. A. Weisgerber (Ed.), Instructional process and media innovation. Chicago: Rand McNally, 1968.

Glaser, R., & Klaus, D. J. Proficiency measurement: Assessing human performance. In R. Gagne (Ed.), Psychological principles in system development. New York: Holt, Rinehart & Winston, 1962.

Goodstein, H. A. The role of pupil performance data in formative evaluation: Criterion-referenced assessment - the panacea? Paper presented at the annual meeting of the Northeastern Educational Research Association, Ellenville, New York, 1974.

Haladyna, T. M. An analysis of two procedures for decision-making when using domain-referenced tests. Paper presented at the annual meeting of the National Council on Measurement in Education, Washington, D.C., 1975.

Hambleton, R. K. Assessing student progress: A criterion-referenced approach. In D. W. Allen (Ed.), Controversies in education. New York: Saunders, 1974.

Hively, W., Maxwell, G., & Rabehl, G., Sension, D., & Lunden, S. Domain referenced curriculum evaluation: A technical handbook and a case study from the Minnemast Project. In M. Alkin (Ed.), CSE Monograph Series in Evaluation: Vol. 1. Los Angeles: Center for the Study of Evaluation, UCLA, 1973.

Kennedy, B. T. The role of criterion-referenced measures within the total evaluative process. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Klein, S. P. Ongoing evaluation of educational programs. Research in Education, Educational Resources Information Center, 1973 (ED 069 725).

Lindvall, C. M., Cox, R. C., & Bolvin, J. O. Evaluation as a tool in curriculum development: The IPI evaluation program. AERA Monograph Series on Curriculum Evaluation. Chicago: Rand McNally, 1970.

Lumsdaine, A. A. Assessing the effectiveness of instructional programs. In R. Glaser (Ed.), Teaching machines and programmed learning. II: Data and directions. Washington: National Education Association, 1965.

Lundin, S. C. A curriculum evaluation and revision based on domain referenced achievement test systems. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Millman, J. Reporting student progress: A case for a criterion-referenced marking system. Phi Delta Kappan, 1970, 52, 226-230.

Millman, J. How to make assignment plans for domain-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Moxley, R. A., Jr. Criterion-referenced tests and the consequences of feedback. Education, 1972, 93, 61-65.

Nitko, A. J. Criterion-referenced testing in the context of instruction. Paper presented at the Educational Records Bureau-National Council on measurement in Education Symposium, "Criterion-Referenced Measures: Pros and Cons," New York, 1970 (ERIC 047 010).

Nitko, A. J. Some considerations when using a domain-referenced system of achievement tests in instructional situations. Research in Education, Educational Resources Information Center, 1970, (ED 037 793).

O'Reilly, R. P., Schriber, P., Gorth, W. P., & Wightman, L. E. Methods of improving the evaluation of student performance in relation to instructional objectives. Paper presented at the annual meeting of the Educational Research Association of New York State, Ellenville, 1969.

Ozenne, D. G. Toward an evaluative methodology for criterion-referenced measures. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Pinsky, P. D. A mathematical model for measurement and control of classroom achievement. Paper presented at the 37th National Meeting of the Operations Research Society of America, Washington D.C., 1970.

Popham, W. P. Curriculum materials. Review of Educational Research, 1969, 39, 319-338.

Popham, W. J. Objectives and instruction. In R. E. Stake (Ed.), Instructional objectives. Chicago: Rand McNally, 1969.

Popham, W. J., & Baker, E. L. Systematic instruction. Englewood Cliffs, N.J.: Prentice-Hall, 1970.

Rahmlow, H. F. A measurement design to facilitate optimum efficiency in diagnosing student needs. Paper presented at the annual meeting of the National Council on Measurement in Education, Los Angeles, 1969.

Sjogren, D. D. Measurement techniques in evaluation. Review of Educational Research, 1970, 40, 301-320.

Skager, R. W. Student entry skills and the evaluation of instructional programs: A case study. CSE Report No. 53, Center for the Study of Evaluation, UCLA, 1969.

Sullivan, H. S. Objectives, evaluation and improved learner achievement. In R. E. Stake (Ed.), Instructional objectives. Chicago: Rand McNally, 1969.

Tyler, R. W. Changing concepts of educational evaluation. In B. O. Smith (Ed.), Perspectives of curriculum evaluation. Chicago: Rand McNally, 1967.

Applications of Criterion-Referenced Testing

Airasian, P. W., & Madaus, G. F. Criterion-referenced testing in the classroom. NCME Measurement in Education Special Report, 1972, 3(2).

Ascher, G. Some nonparametric approaches to the use of criterion-referenced statewide test results in the evaluation of local district educational programs. Paper presented at the annual meeting of the American Educational Research Association, Washington D.C., 1975.

Athey, I., & O'Reilly, R. P. A criterion-referenced testing model for assessing growth in reading. Paper presented at the annual meeting of the National Council on Measurement in Education, Washington D.C., 1975.

Benjamin, R. C. The impact of criterion-referenced reading assessment on planning, teaching and evaluating in a recently desegregated urban setting. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Besel, R., & Okada, M. Domain-referenced tests for an objectives-based reading program. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1974.

Boehm, A. E. Criterion-referenced assessment for the teacher. Teachers College Record, 1973, 75, 117-126.

Bormuth, J. R. Reading literacy: Its definitions and assessment. Reading Research Quarterly, 1973, 9, 7-66.

Cartier, F. A. Criterion-referenced testing of language skills. Tesol Quarterly, 1968, 2. (Abstracted in Research in Education, Educational Resources Information Center, 1968, ED 020 515).

Carver, R. P. The criterion-referenced aspects of the Carver-Darby Chunked Reading Test. In Research in Education, Educational Resources Information Center, (ED 047 911).

Carver, R. P. Reading tests in 1970 versus 1980: Psychometric versus edumetric. The Reading Teacher, 1972, 26, 299-302.

Cornejo, R. J. Criterion-referenced assessment system for bilingual reading: SCORER-Espanol. California Journal of Educational Research, 1974, 25, 294-301.

Crawford, W. R. Criterion-referenced measures in medical education. Didakta, in press.

D'Costa, A. G. OVIS: A Non-predictive device. Research in Education, Educational Resources Information Center, 1973, (ED 069 712).

Elsner, P. J. Criterion-referenced assessment and its classroom uses as viewed by teachers. School Science and Mathematics, 1973, 73, 730-734.

Esler, W. K., & Sciuban, C. D. Criterion referenced test: Some advantages and disadvantages for science instruction. Science Education, 1974, 58, 171-174.

Farr, R., & Roser, N. L. Reading assessment: A look at problems and issues. Journal of Reading, 1974, 17, 592-599.

Forman, D. SCORE: A flexible system for school curriculum objective-referenced evaluation. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Fremer, J. Review of criterion reading: Individualized learning management system. The Reading Teacher, 1973, 26, 521-527.

Fremer, J. Services in the area of criterion-referenced and objectives-referenced measurement: What, why, and where next. Paper presented at the Michigan School Testing Conference, Ann Arbor, Michigan, 1973.

Garvin, A. D. The applicability of criterion-referenced measurement by content area and level. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970 (ERIC, ED 041 038).

Glaser, R., Damrin, D. E., & Gardner, F. M. The tab item: A technique for the measurement of proficiency in diagnostic problem solving tasks. Educational and Psychological Measurement, 1954, 14, 283-293.

Gorth, W. P. (Ch.) Comprehensive achievement monitoring. Symposium presented at the annual meeting of the American Educational Research Association, Los Angeles, 1969.

Gorth, W. P. (Ch.) Designing instructional systems with longitudinal testing using item sampling techniques. Symposium presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Gorth, W. P. Comprehensive achievement monitoring: A decentralized program evaluation system. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Gorth, W. P., Allen, D. W., Popejoy, L., & Stroud, T. A comparison of comprehensive versus unit pretesting as related to student achievement. Psychology in the Schools, 1969, 6, 391-393.

Gorth, W. P., & Grayson, A. Computer programs for test objectives and item banking. Educational and Psychological Measurement, 1971, 31, 245-250.

Gorth, W. P., Grayson, A., Popejoy, L., & Stroud, T. A tape-based data bank for educational research on instructional testing using longitudinal item sampling. Educational and Psychological Measurement, 1969, 29, 175-177.

Gorth, W. P., & Hambleton, R. K. Measurement considerations for criterion-referenced testing and special education. Journal of Special Education, 1972, 6, 303-314.

Gorth, W. P., Schriber, P., & O'Reilly, R. P. Comprehensive achievement monitoring. Amherst, Mass.: School of Education, University of Massachusetts, 1971.

Gorth, W. P., Wightman, L., O'Reilly, R. P., & Schriber, P. E. CAM and the computer help teachers improve evaluation. Trend, 1970, Spring, 5-6.

Gray, W. M. Development of a Piagetian-based written test: A criterion-referenced approach. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Gray, W. M. An integration of Piaget and criterion-referenced measurement. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Hambleton, R. K., & Gorth, W. P. Criterion-referenced testing: Issues and applications. Center for Educational Research Technical Report #13, School of Education, University of Massachusetts, Amherst, 1971.

Hambleton, R. K., Gorth, W. P., & O'Reilly, R. P. A formative evaluation model for classroom instruction. Center for Educational Research Technical Report #16, School of Education, University of Massachusetts, Amherst, 1971.

Hambleton, R. K., Gorth, W. P., & O'Reilly, R. P. An application of an evaluation model for classroom instruction. Journal of Educational Technology Systems, 1973, 2, 117-131.

Hambleton, R. K., Stetz, F. P., & Rios, A. R. The development of objective-based programs in occupational education. Paper presented at the annual meeting of the Northeastern Educational Research Association, Ellenville, New York, 1973.

Healy, J. P., & Castine, W. H. Criterion-referenced testing as part of Florida's educational assessment program. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1972.

Hively, W., Patterson, H. L., & Page, S. A "universe-defined" system of arithmetic achievement tests. Journal of Educational Measurement, 1968, 5, 275-290.

Houtz, J. C., & Rosenfield, S. Application of criterion-referenced measurement principles to the evaluation of behavior modification studies. Paper presented at the annual meeting of the National Council on Measurement in Education, Washington D.C., 1975.

Ivens, S. H. A pragmatic approach to criterion-referenced measures. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Jackson, R. The development of a collection of adult tasks for assessment of literacy. Research in Education, Educational Resources Information Center, 1973, (ED 061 023).

Jones, R. L. Accountability in special education: Some problems. Exceptional Children, 1973, 39, 631-642.

Knipe, W., & Krahmer, E. F. An application of criterion-referenced testing. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Koos, E. M., & Chan, J. Y. Criterion-referenced testing of inquiry skills in high school biology. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Kriewall, T. W. Aspects and applications of criterion-referenced tests. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

McDonald, T. F., & Moorman, G. B. Criterion-referenced testing for functional literacy. Journal of Reading, 1974, 17, 363-366.

McGuire, C. H. An evaluation model for professional education-medical education. In Proceedings of the 1967 Invitational Conference on Testing Problems. Princeton, N.J.: Educational Testing Service, 1968.

Merwin, J. C. The progress of exploration toward national assessment of educational progress. Journal of Educational Measurement, 1966, 3, 5-10.

Nicolich, M. J., Nicolich, L, & Raph, J. Demonstration of techniques for optimizing the use of criterion-referenced achievement tests in children enrolled in a day care center. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1974.

Olsen, M. A. Criterion-referenced reading assessment in a large-city school district. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Prescott, G. A. Criterion-referenced test interpretation in reading. The Reading Teacher, 1971, 24, 347-354.

Quirk, T. J. Some measurement issues in competency-based teacher education. Phi Delta Kappan, 1974, 55, 316-319.

Richards, J. M. Assessing student performance in college. In Research in Education, Educational Resources Information Center, 1970, (ED 040 307).

Sciara, F. J. Criterion referenced tests: A new promise for old problems in migrant education. Research in Education, Educational Resources Information Center, 1973 (ED 057 984).

Stetz, F. P. An investigation of practical concerns in the construction of criterion-referenced reading tests. Paper presented at the annual meeting of the Northeastern Educational Research Association, Ellenville, New York, 1974.

Stetz, F. P. Toward better assessment of student achievement in informal educational settings. CEDR Quarterly, 1975, in press. (Also published in Resources in Education, Educational Research Information Center, 1974, ED 093 978).

Thompson, R. A., & Dziuban, C. D. Criterion-referenced reading tests in perspective. The Reading Teacher, 1973, 27, 292-294.

Wightman, L., & Gorth, W. P. CAM: The new look in classroom testing. Trend, 1969, Spring, 56-57.

Criterion-Referenced Testing and Individualization of Instruction/ Individualized Instructional Models

Atkinson, R. C. Computer-based instruction in initial reading. In Proceedings of the 1967 Invitational Conference on Testing Problems. Princeton, N.J.: Educational Testing Service, 1968.

Beaird, J. R. Computer-based test development (COMBAT). Monmouth, N.J.: Teaching Research Division of Oregon State System of Higher Education, 1969.

Besel, R. A comparison of Emrick and Adam's mastery-learning test model with Kriewall's criterion-referenced test model. Inglewood, California: Southwest Regional Laboratory, Technical Memorandum 5-71-04, April, 1971.

Besel, R. A mastery-learning test model. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Block, J. H. (Ed.) Mastery learning: Theory and practice. New York: Holt, Rinehart and Winston, 1971.

Bloom, B. S. Learning for mastery. Evaluation Comment, 1968, 1(2).

Bloom, B. S. Mastery learning. In J. H. Block (Ed.), Mastery learning: Theory and practice. New York: Holt, Rinehart & Winston, 1971.

Bolvin, J. O., & Glaser, R. Development aspects of individually prescribed instruction. Audiovisual Instruction, 1968, 13(8), 828-831.

Breland, N. S., & Smith, M. P. Cognitive and affective outcomes of PSI/Mastery Programs as compared to traditional instruction. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Burns, R. W. Achievement testing in competency-based education. Educational Technology, 1972, 12, 39-42.

Burrows, C. K., & Okey, J. R. The effects of a mastery learning strategy on achievement. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Carroll, J. B. Problems of measurement related to the concept of learning for mastery. Educational Horizons, 1970, 48, 71-80.

Cooley, W. W., & Glaser, R. An information and management system for individually prescribed instruction. Technical Report. Learning Research and Development Center, University of Pittsburgh, 1968.

Cooley, W. W., & Glaser, R. The computer and individualized instruction. Science, 1969, 166, 574-582.

Coulson, J. E., & Cogswell, J. F. Effects of individualized instruction on testing. Journal of Educational Measurement, 1965, 2, 59-64.

Cox, R., & Boston, M. E. Diagnosis of pupil achievement in the Individually Prescribed Instruction Project. Working Paper 15. Pittsburgh: Learning Research and Development Center, University of Pittsburgh, 1967.

Cronbach, L. J. How can instruction be adapted to individual differences? In R. Gagne (Ed.), Learning and individual differences. Columbus, Ohio: Charles E. Merrill Books, 1967.

Duda, M. J. A critical analysis of individually prescribed instruction. Educational Technology, 1970, 10(12), 47-52.

Dunn, J. A. The PLAN approach to curriculum definition. Education, 1970, 90, 221-226.

Ferguson, R. L. The development, implementation and evaluation of a computer-assisted branched test for a program of individually prescribed instruction. Unpublished doctoral dissertation, University of Pittsburgh, 1969.

Ferguson, R. L. A model for computer-assisted criterion-referenced measurement. Education, 1970, 81(1), 25-31.

Ferguson, R. L. Computer-assisted criterion-referenced measurement. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970 (ERIC, ED 040 061).

Flanagan, J. C. Program for learning in accordance with needs. Psychology in the Schools, 1969, 6, 133-136.

Flanagan, J. C. Individualizing education. Education, 1970, 90, 191-206.

Flanagan, J. C. Project PLAN: Basic assumptions, implementation, and significance. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Flanagan, J. C. The PLAN system for individualizing education. NCME Measurement in Education, 1971, 2(2).

Gibbons, M. What is individualized instruction? Interchange, 1970, 1, 28-52.

Glaser, R. Adapting the elementary school curriculum to individual performance. In Proceedings of the 1967 Invitational Conference on Testing Problems. Princeton, N.J.: Educational Testing Service, 1968.

Glasnapp, D. R., Poggio, J. P., & Ory, J. C. Cognitive and affective consequences of mastery and non-mastery instructional strategies. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Hambleton, R. K. Testing and decision-making procedures for selected individualized instructional programs. Review of Educational Research, 1974, 44, 371-400. (Also published as ACT Technical Bulletin No. 15. Iowa City, Iowa: American College Testing Program, 1973).

Hambleton, R. K., Hutten, L., & Swaminathan, H. A comparison of several methods for assessing student mastery of objective-based instructional programs. Laboratory of Psychometric and Evaluative Research Report No. 6. Amherst, Mass.: School of Education, University of Massachusetts, 1974.

Heathers, G. Overview of innovations in organization for learning. Interchange, 1972, 3, 47-68.

Katzenmeyer, C. G., Steward, D. M., & Quilling, M. R. A model for the development and evaluation of placement tests for objective-based curriculum management systems. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1974.

Levin, H. M. The economic implications of mastery learning. Occasional Paper 73-75. Stanford, Calif.: School of Education, Stanford University, 1973.

Lindwall, C. M., & Nitko, A. J. Criterion-referenced testing and the individualization of instruction. In Research in Education, Educational Resources Information Center, (ED 036 167).

Mayo, S. T. Mastery learning and mastery testing. Measurement in Education, 1970, 1(3).

McLoughlin, W. P. Individualization of instruction vs. nongrading. Phi Delta Kappan, 1972, 53, 378-381.

Mueller, D. J. Mastery model and some alternative models of classroom instruction and evaluation: An analysis. Educational Technology, 1973, 13, 5-10.

Niedermeyer, F. C., & Sullivan, H. J. Differential effects of individual and group testing strategies in an objectives-based instructional program. Journal of Educational Measurement, 1972, 9, 199-204.

Nitko, A. J. Measurement of instructional outcome vs. measurement for instruction: A view of IPI testing procedure. In Research in Education, Educational Resources Information Center, 1968, (ED 036 185).

O'Reilly, R. B., & Hambleton, R. K. A CMI model for an individualized learning program in ninth grade science. Center for Educational Research Technical Report #14, School of Education, University of Massachusetts, Amherst, 1971.

Proger, B. B., Mann, L, Berger, R. M., & Cross, L. H. Adapting criterion-referenced measurement to individualization of instruction for handicapped children: Some issues and a first attempt. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Rahmlow, H. F. Use of student performance data for improvement of individualized instructional materials. Paper presented at the annual meeting of the American Psychological Association, Washington, D.C., 1969.

Reynolds, J. A strategy for the evaluation of individualization. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Schutz, R. E., Baker, R. L., & Gerlach, V. S. Measurement procedures in programmed instruction. Tempe: Arizona State University, Classroom Learning Laboratory, 1964.

Spinetti, J., & Hambleton, R. K. A computer simulation study of tailored testing strategies for objective-based instructional programs. Laboratory of Psychometric and Evaluative Research Report No. 2 Amherst, Mass.: School of Education, University of Massachusetts, 1973.

Taylor, S. S. The effects of mastery, adaptive mastery, and non-mastery models on the learning of a mathematical task. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Valette, R. M. Teaching for mastery: The role of classroom testing. The Forum, 1970, 2, 17-22.

Washburne, C. W. Educational measurements as a key to individualizing instruction and promotions. Journal of Educational Research, 1922, 5, 195-206.

Weisgerber, R. A. (Ed.) Developmental efforts in individualizing learning. Itasca, Ill.: Peacock, 1971.

Wood, R. The efficacy of tailored testing. Educational Research, 1968, 11, 219-222.

Wood, R. Response-contingent testing. Review of Educational Research, 1973, 43, 529-544.

Criterion-Referenced Instruments

Adamson, G., Shrago, M., & Van Etten, G. Basic educational skills inventory, experimental edition: Math. Olathe, Kansas: Select-Ed, Inc., 1972.

Adamson, G., Shrago, M., & Van Etten, G. Basic educational skills inventory, experimental edition: Reading. Olathe, Kansas: Select-Ed. Inc.

Besel, R. A pupil performance measure for criterion-referenced instructional programs. Paper presented at the Joint National Conference on Major Systems, Anaheim, California, 1971.

Buswell, G. T. SRA reading record. Chicago: Science Research Associates, 1973.

Carver, R. P. Reading progress scale. Silver Spring, Md.: Revrac Publications, 1970.

Carver, R. P., & Darby, C. A., Jr. Carver-Darby chunked reading test. Silver Springs, Md.: American Institutes for Research, 1970.

Cochran, E. V., & Shannon, J. L. The APELL test. Orange, Calif: EDCODYNE Corp., 1970.

Committee on Diagnostic Reading Tests, Inc. Diagnostic reading test: Survey section. Chicago: Science Research Associates, 1973.

Connolly, A. J., Nachtman, W., & Prichett, M. Keymath diagnostic arithmetic test. Circle Pines, Minn.: American Guidance Service, Inc. 1971.

Diagnosis: An instructional aid series - Mathematics. Chicago: Science Research Associates, 1973.

Diagnosis: An instructional aid series - Reading. Chicago: Science Research Associates, 1973.

Elley, W. B., & Reid, N. A. Progressive achievement tests: Listening comprehension. Wellington, New Zealand: New Zealand Council for Educational Research, 1971.

Elley, W. B., & Reid, N. A. Progressive achievement tests: Reading comprehension. Wellington, New Zealand: New Zealand Council for Educational Research, 1969.

Elley, W. B., & Reid, N. A. Progressive achievement tests: Reading vocabulary. Wellington, New Zealand: New Zealand Council for Educational Research, 1969.

Engelmann, S. Basic concepts inventory. Chicago: Follett Educational Corp., 1967.

Evans, W. H., & Jacobs, P. H. Illinois tests in the teaching of English-attitude and knowledge in written composition: Competency test B. Carbondale, Ill.: Southern Illinois University Press, 1969.

Evans, W. H. & Jacobs, P. H. Illinois tests in the teaching of English-knowledge of language: Competency test A. Carbondale, Ill.: Southern Illinois University Press, 1969.

Evans, W. H., & Jacobs, P. H. Illinois tests in the teaching of English-knowledge of literature: Competency test C. Carbondale, Ill.: Southern Illinois University Press, 1969.

Evans, W. H., & Jacobs, P. H. Illinois tests in the teaching of English-knowledge of the teaching of English: Competency test D. Carbondale, Ill.: Southern Illinois University Press, 1969.

Fountain valley teacher support system in reading. Huntington Beach, Calif.: Richard L. Zweig Associates, Inc., 1971.

Fry, E. Oral reading criterion test for determining independent and instructional reading levels. Highland Park, N.J.: Dreier Educational Systems, Inc. 1971.

Fry, E. Phonics criterion test of 99 phoneme grapheme correspondences. Highland Park, N.J.: Dreier Educational Systems, Inc., 1971.

Fry, E. The instant word recognition test. Highland Park, N.J.: Dreier Educational Systems, Inc., 1971.

Gessel, J. Prescriptive mathematics inventory. Monterey, Calif.: CTB/McGraw-Hill, 1972.

Hambleton, R. K., & Stetz, F. P. Reading skills inventory: A criterion-referenced assessment. Boston, Mass.: International Educational Associates, 1974.

Harcourt Brace Jovanovich, Inc. Skills monitoring system: Comprehension. New York: HBJ, 1975.

Harcourt Brace Jovanovich, Inc. Skills monitoring system: Word Identification. New York: HBJ, 1975.

Individual pupil monitoring system: Mathematics. Boston: Houghton Mifflin, 1973.

Individual pupil monitoring system: Reading. Boston: Houghton Mifflin, 1974.

Klausmeier, H. J. Student self-assessment checklist. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1970.

Klausmeier, H. J. Teacher assessment of student checklist. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1970.

Majer, K., & Shoemaker, D. M. A three-part test for criterion-referenced assessment. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Objectives-based test collection. Los Angeles: Instructional objectives exchange, 1973.

Otto, W. Wisconsin tests of reading skill development: Word attack-Developmental edition. Minneapolis: National Computer Systems, Inc., 1970.

Prescriptive mathematics inventory. Monterey, Calif.: CTB/McGraw-Hill, 1973.

Prescriptive reading inventory. Monterey, Calif.: CTB/McGraw-Hill, 1972.

Preston, R. C., & Botel. M. Study habits checklist. Chicago: Science Research Associates, 1973.

Reading-arithmetic index. Chicago: Science Research Associates, Inc., 1973.

Reading comprehension skills: A systems approach. New London, Conn.: Croft Educational Services, Inc., 1973.

Rhoades, W. M. Delco readiness test. Media, Pa.: Delco Readiness Test, 1970.

Rosner, J. Visual analysis test. Pittsburgh: Learning Research and Development Center, University of Pittsburgh, 1971.

SCORE: School curriculum objective-referenced evaluation. Iowa City, Iowa: Westinghouse Learning Corp.

Woodcock, R. W. Woodcock reading mastery tests. Circle Pines, Minn.: American Guidance Service, 1973.

Wrinkle, W. L., Sanders, J., & Kendel, E. H. Basic skills in arithmetic. Chicago: Science Research Associates, 1973.

Young, J. C., Klinger, J. R., Davis, P. A., & Lovelace, G. R. Individualized mathematics program: Level C. San Diego: Educational and Industrial Testing Service, 1970.

Young, J. C., & Knapp, R. R. Tests of achievement in basic skills - mathematics, level C. San Diego: Educational and Industrial Testing Service, 1970.

Criterion-Referenced Testing and Norm-Referenced Testing

Davis, F. B. Criterion-referenced tests: A critique. Research in Education, Educational Resources Information Center, (ED 050 154).

Drew, C. J. Criterion-referenced and norm-referenced assessment of minority group children. Journal of School Psychology, 1973, 11, 323-329.

Ebel, R. L. Criterion-referenced measurement: Limitations. School Review, 1971, 69, 282-288.

Fitzgibbon, T. J. Norm-referenced and criterion-referenced tests from a publisher's point of view. Research in Education, Educational Resources Information Center, 1973, (ED 069 787).

Fremer, J. Criterion-referenced interpretations of survey achievement tests. Test Development Memorandum TDM-72-1. Princeton, N.J.: Educational Testing Service, 1972.

Greco, T. H., Jr. Is there really a difference between criterion-referenced and norm-referenced measurements? Educational Technology, 1974, 14, 22-25.

Hammock, J. Criterion measures: Instruction vs. selection research. American Psychologist, 1960, 15, 435.

Hansen, J. B. Content referenced vs. norm-referenced testing. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Harsh, J. R. The forest, trees, branches and leaves, revisited - Norm, domain, objective and criterion-referenced assessments for educational assessment and evaluation. Association for Measurement and Evaluation in Guidance Monograph 1, 1974.

Hawes, G. R. Criterion-referenced testing: No more losers, no more norms, no more parents raising storms. Nation's Schools, 1973, 91(2), 35-41.

Klein, S. P. Evaluating tests in terms of the information they provide. Educational Comment, 1970, 2(2), 1-6.

Mattson, D. E. Criterion-related measures in education: An appealing delusion. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, 1970.

Millman, J. Criterion-referenced measurement: An alternative. Reading Teacher, 1972, 26, 278-281.

Moxley, R. A., Jr. A source of disorder in the schools and a way to reduce it: Two kinds of tests. Teacher and Technology, 1970, 1, 3-6.

Nedelsky, L. Absolute grading standards for objective tests. Educational and Psychological Measurement, 1954, 14, 3-19.

Proger, B. B., & Mann, L. Criterion-referenced measurement: The world of gray versus black and white. Journal of Learning Disabilities, 1973, 6, 72-84.

Rahmlow, H. F. Implementing a mixed program of criterion and norm-referenced measurement. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Randall, R. S. Contrasting norm-referenced and criterion-referenced measures. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1972.

Ransom, G. A. Criterion-referenced tests: Let the buyer beware. Reading Teacher, 1972, 26, 282-285.

Roudabush, G. E. Estimating normative scores from a criterion-referenced test. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1975.

Smythe, M. J., et al. Comparison of norm-referenced and criterion-referenced measurement with implications for communication instruction. Speech Teacher, 1973, 22, 1-17.

Stetz, F. P. A comparison of criterion and norm-referenced reporting systems for the purposes of decision-making. Paper presented at the annual meeting of the New England Educational Research Organization, Provincetown, Massachusetts, 1975.

Articles Related to Methodological Considerations for Criterion-Referenced Tests *

Birnbaum, A. Some latent trait models and their use in inferring an examinee's ability. In F. M. Lord & M. R. Novick, Statistical theories of mental test scores. Reading, Mass.: Addison-Wesley, 1968.

Bock, R. D. Estimating item parameters and latent ability when responses are scored in two or more nominal categories. Psychometrika, 1971.

* Compiled by R. K. Hambleton & R. Williams, University of Massachusetts, Amherst.

Cronbach, L. J. How can instruction be adapted to individual differences. In R. M. Gagne (Ed.), Learning and individual differences. Columbus, Ohio: Charles E. Merrill, 1967.

Cronbach, L. J., & Gleser, G. C. Psychological tests and personnel decisions. Urbana, Ill.: University of Illinois Press, 1965.

Englehart, M. D. A comparison of several item discrimination indices. Journal of Educational Measurement, 1965, 2, 69-76.

Gulliksen, H. Theory of mental tests. New York: Wiley, 1950.

Guttman, L. A. The basis for scalogram analysis. In S. A. Stouffer, et al., Measurement and prediction. Princeton, N.J.: Princeton University Press, 1950.

Hambleton, R. K., Roberts, D. M., & Traub, R. E. A comparison of the reliability and validity of two methods for assessing partial knowledge on a multiple-choice test. Journal of Educational Measurement, 1970, 7, 75-82.

Hambleton, R. K., Rovinelli, R., & Gorth, W. P. Efficiency of various item-examinee sampling designs for estimating test parameters. In Proceedings, 79th Annual Convention, American Psychological Association, 1971.

Hambleton, R. K., & Traub, R. E. Analysis of empirical data using two logistic test models. Center for Educational Research, Technical Report #3, School of Education, University of Massachusetts, Amherst, 1970.

Lord, F. M. A theory of test scores. Psychometric Monograph, No. 7, 1952.

Lord, F. M. Do tests of the same length have the same standard error of measurement? Educational and Psychological Measurement, 1957, 17, 510-521.

Lord, F. M. Estimating norms by item sampling. Educational and Psychological Measurement, 1962, 22, 259-267.

Lord, F. M. An analysis of the verbal scholastic aptitude test using Birnbaum's three-parameter logistic model. Educational and Psychological Measurement, 1968, 28, 989-1020.

Lord, F. M. Some test theory for tailored testing. In W. Holtzman (Ed.), Computer-assisted instruction, testing, and guidance. New York: Harper & Row, 1970.

Lord, F. M., & Novick, M. R. Statistical theories of mental test scores. Reading, Mass.: Addison-Wesley, 1968.

Novick, M. R., & Lewis, C. The estimation of proportions in "m" groups. ACT Technical Bulletin No. 1. The American College Testing Program, Iowa, 1971.

Ross, J. An empirical study of a logistic mental test model. Psychometrika, 1966, 31, 325-340.

Shoemaker, D. M. Allocation of items and examinees in estimating a norm distribution by item sampling. Journal of Educational Measurement, 1970, 7, 123-128.

Shoemaker, D. M. Item-examinee sampling procedures and associated standard errors in estimating test parameters. Journal of Educational Measurement, 1970, 7, 255-262.

Sirotnick, K. An analysis of variance framework for matrix sampling. Educational and Psychological Measurement, 1970, 30, 891-908.

Suppes, P. The uses of computers in education. Scientific American, 1966, 215, 206-221.

Wang, M. D., & Stanley, J. C. Differential weighting: A review of methods and empirical studies. Review of Educational Research, 1970, 40, 663-705.

Wardrop, J. L. The use of item characteristic curves for criterion-referenced measurement. Mimeographed document, University of Illinois, Urbana, 1970.

Additional References

Brazziel, W. F. Criterion-referenced tests: Some trends and prospects. Today's Education, 1972, 61, 52-53.

Carver, R. P. Special problems in measuring change with psychometric devices. In Evaluative research: Strategies and methods. Washington: American Institute for Research, 1970.

Coulson, D., & Hambleton, R. K. On the validation of criterion-referenced tests designed to measure individual mastery. Laboratory of Psychometric and Evaluative Research Report No. 7. Amherst, Mass.: School of Education, University of Massachusetts, 1974.

Diamond, J. On growth and measurement: A reminder. Educational and Psychological Measurement, 1973, 33, 587-589,

Donlon, T. F Some needs for clearer terminology in criterion-referenced testing. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, 1974.

Dziuban, C.D., & Vichery, K. V. Criterion-referenced measurement: Some recent developments. Educational Leadership, 1973, 30, 483-486.

Gardner, E. F. Normative standard scores. Educational and Psychological Measurement, 1962, 22, 7-14.

Keesling, J. W. Identification and implications of differing intended outcomes: Criterion-referenced testing. Paper presented at the annual meeting of the American Educational Research Association, Washington D.C., 1975.

Moxley, R. A., Jr. Criterion-referenced testing. National Education Association Research Bulletin, 1971, 49(2), 35-36.

Popham, W. J. Approaching peril: Cloud-referenced tests. Phi Delta Kappan, 1974, 55, 614-615.

Rupley, W. H. Criterion-referenced testing: ERIC/RCS report. The Reading Teacher, 1975, 28, 426-427.

Sapone, C. V. An administrative view. Research in Education, Educational Resources Information Center, 1973 (ED 064 333).

Shoemaker, D. M. Criterion-referenced measurement revisited. Educational Technology, 1971, 11. 61-62.

Shoemaker, D. M. Improving criterion-referenced measurement. Journal of Special Education, 1972, 6, 315-323.

Swaminathan, H., Hambleton, R. K., & Algina, J. A decision-theoretic approach to issues in criterion-referenced assessment. Laboratory of Psychometric and Evaluative Research Report No. 1. Amherst, Mass.: School of Education, University of Massachusetts, 1973.

Swaminathan, H., Hambleton, R. K., & Algina, J. A Bayesian decision-theoretic procedure for use with criterion-referenced tests. Journal of Educational Measurement, 1975, in press.

Traub, R. E. Criterion-referenced measurement: Something old and something new. Invited public address at the University of Victoria, July, 1972.